

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

AT 81577
A3U52
cop 3

REPORT NO. 10

24 17
CURRENT LEAD RECORDS

Cotton Fiber and Processing Test Results

CROP of

1972



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38117 December 22, 1972

This is the tenth of a series of reports of fiber and processing test results from the 1972 cotton crop. Subsequent reports in this series will follow at approximately two-week intervals during the harvesting season, and will be summarized in a comprehensive report at the end of the season. This series will present data on the same subject as "Summary of Cotton Fiber and Processing Test Results, crop of 1971", April 1972. These reports are published by the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, P. O. Box 17723, Memphis, TN 38117.

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1972

Discussion of Test Results

Cotton testing laboratories of the Agricultural Marketing Service, USDA, report fibers from Southwestern short staple samples tested, to date, are longer, finer and stronger than through the same period a year ago. Shirley Analyzer nonlint content and picker and comber waste are lower than a year ago. Yarns spun from these samples are stronger and show fewer imperfections. Average spinning potential yarn number is higher.

Averages for all medium staple samples tested through December 15, 1972 show shorter fibers than a year ago. Yarns spun from these samples have fewer imperfections.

Southeastern medium staple samples tested show stronger fiber strength this year and both Shirley Analyzer nonlint content and picker and card waste is lower. Yarns spun from these samples are stronger, but have lower yarn appearance grades. Fewer imperfections were shown this year, and average spinning potential yarn number is higher.

South Central medium staple samples are shorter and stronger than last season. Picker and card waste is slightly more this season. Yarns spun from these samples show higher appearance grades than a year ago.

Southwest medium staple samples tested, to date, show weaker fiber strength at zero gage than last season and picker and card waste is higher. Yarns spun from these samples show more imperfections. Average spinning potential yarn number is higher than a year ago.

Medium staple samples tested from the West are shorter, coarser and weaker than last season at this time. Yarns spun from these samples show the strength to be weaker and fewer imperfections than a year ago. Average spinning potential yarn number is lower.

Averages for all long staple samples tested show stronger fibers at zero gage than last year. Both picker and card and comber waste are lower. Yarns spun from these samples are stronger and appearance grades are lower. Imperfections in carded yarn are higher. Average spinning yarn potential number is higher.

Long staple samples from the Southeast are shorter and stronger this year. Shirley Analyzer nonlint content is less this year. Picker and card and comber waste are less than last season. Yarns spun from these samples are stronger, but appearance grades are lower, with more imperfections in the carded yarn. Average spinning potential yarn number is higher.

South Central long staple samples tested are shorter, finer, and stronger than a year ago. Shirley Analyzer nonlint is lower as is picker and card waste. Yarn appearance grades are lower. Spinning potential yarn number is higher.

Long staple samples from the West show about the same fiber test results as last season. Picker and card waste is lower. Yarn appearance grades are lower and more imperfections were noted this season. Average spinning potential yarn number is higher.

No additional extra long staple American Upland lots were received during this report period.

Extra long staple, American Pima, samples from the West are finer than last season. Both picker and card waste and yarn appearance grades are lower than a year ago.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through December 15, 1972 1/

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results					
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality			Spin. Potent.	
					Zero gage	1/8" gage			Skein str.	Appear- ance	Imperf- ections		
		2.5% span	50/2.5 unif.	Pct.	Rdg.	Mpsi	G/tex	Pct.	Lbs.	Index	No.	Yarn No.	
													Inches
No.													
Short Staple: Southwest	27	0.95	45	4.6	80	20	3.9	6.8	85	117	31	37	
	27	0.97	45	4.4	83	20	3.2	6.1	94	119	24	47	
Medium Staple: Southeast	67	1.08	45	4.4	79	22	3.4	6.6	99	109	20	61	
	57	1.07	45	4.3	83	23	2.9	6.2	104	103	16	66	
South Central	141	1.10	45	4.3	81	22	3.0	5.9	103	113	20	62	
	146	1.08	46	4.3	83	23	2.8	6.2	104	119	19	64	
Southwest	28	1.07	45	4.5	86	22	3.1	5.6	103	121	20	59	
	32	1.07	45	4.4	83	22	3.2	6.2	102	119	23	62	
West	59	1.12	45	4.2	93	25	2.7	5.3	121	120	24	70	
	52	1.09	45	4.4	90	24	2.6	5.4	110	121	17	66	
U. S. Average	295	1.10	45	4.3	83	23	3.0	5.9	106	114	21	63	
	287	1.08	45	4.4	84	23	2.8	6.0	105	116	18	64	
Significant dif- ference <u>2/</u>		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3	

1/ Based on a limited number of samples of modal quality

2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States
1/ (Continued)
through December 15, 1972

Staple group, Area, and Crop year	Lots	Fiber Test Results						Processing Test Results															
		Length		Mike	Strength		SA Non- lint	P&C Waste	Comber Waste	Yarn Quality													
		Span	Unif		Zero	1/8" gage				Strength carded	Appearance combed	Imprfctns card	SPY										
														In.	Pct.	Rdg.	Mpsi	G/tx	Pct.	Lbs.	Lbs.	Indx	No.
22s Carded & Combed Yarn																							
Long Staple: Southeast																							
1971	16	1.14	43	4.3	79	22	4.2	9.7	17.2	102	118	109	118	22	10	65							
1972	17	1.12	44	4.3	85	24	3.6	8.4	16.9	107	124	101	116	24	9	69							
South Central																							
1971	3	1.22	43	4.5	83	24	5.3	9.6	16.4	113	130	107	117	20	9	70							
1972	4	1.16	44	4.0	88	24	4.2	8.8	16.0	116	131	100	110	20	11	75							
West																							
1971	10	1.17	44	3.7	92	26	2.2	8.3	15.8	129	146	101	105	20	12	78							
1972	15	1.17	44	3.6	91	25	2.5	7.2	15.6	126	145	91	100	26	13	86							
U. S. Average																							
1971	29	1.16	43	4.1	84	24	3.6	9.2	16.7	112	129	106	113	21	11	70							
1972	36	1.15	44	4.0	88	24	3.4	8.1	16.1	116	133	97	108	23	11	76							
Extra Long Staple:																							
West																							
1971	2	1.41	30	4.0	105	30	2.0	8.2	16.0	66			100		10								
1972	1	1.40	31	4.0	108	32	2.3	8.6	16.4	64			100		5								
West																							
1971	13	1.45	31	3.9	98	32	2.6	8.3	17.3	66			116		2								
1972	14	1.45	32	3.6	98	32	2.6	7.7	17.7	63			111		3								
Significant Difference 2/		0.02	2	0.2	2	1	0.5	0.5	0.5	4(22s)	4(22s)	5	5	2	2	3							

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1972

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
Sample Number		Grade	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent- ial	
				2.5% span	Unif		Zero	1/8" Gage			Gra	Yel		8s or 7 1/4 tx	22sor 27 tx	8s or 7 1/4 tx	22s or 27 tx	8s or 7 1/4 tx	22sor 27 tx	8s or 7 1/4 tx	22sor 27 tx		
No	Name & Code		32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No	
WESTERN NORTHWEST TEXAS AREA																							
ANSON 1 LM	51	31	0.97	44	4.1	74	LANKART 611		20	8.2	4.0	4	3	100 PERCENT	91	7.8	6.3	120	110	58	33	45	
BIG SPRING 1 MID	31	31	0.94	44	4.1	80	WEST.STORMPROOF		20	5.9	2.9	2	3	90 PERCENT	90	7.1	5.9	120	120	31	21	42	
LARIAT 1 LM SP	53	30	0.89	46	3.3	82	RILCOT 90		22	7.2	6.2	5	6	75 PERCENT	99	7.5	6.4	120	110	65	42	43	
LOCKNEY 1 SLM	41	31	0.94	45	3.6	77	STRIPPER 31		21	7.5	2.8	2	3	80 PERCENT	94	7.5	6.4	120	120	53	33	47	
WINTERS 2 LM LT SP	52*	31	0.98	44	4.2	78	LANKART 57		20	7.1	5.1	5	4	90 PERCENT	87	7.4	6.0	120	120	55	32	43	

* Reduced from 42 because of bark

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1972

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns										
No	Grade & Code	Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potential		
				2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx			
SOUTHEASTERN AREA																								
ALABAMA																								
CHEROKEE		51	34	1.13	43	4.1	79	DELTAPINE 16		22	7.3	3.2	3	3	5.9	85 PERCENT	34	6.6	4.8	90	70	28	28	64
DEATSVILLE		51	35	1.12	44	3.8	85	COKER 417		24	6.0	2.9	3	2	5.8	100 PERCENT	41	6.2	4.7	90	70	16	12	70
GERALDINE		42	33	1.03	46	4.9	81	COKER 201		22	5.8	2.0	3	3	5.6	85 PERCENT	27	5.4	3.9	120	90	9	6	51
GEORGIA																								
BOSTWICK		51	33	0.97	44	4.4	85	DIXIE KING II		20	5.6	2.7	4	2	6.1	81 PERCENT	25	5.2	3.9	110	90	9	7	54
GOUGH		51	34	1.07	46	4.3	87	COKER 201		23	5.5	3.7	4	2	7.6	98 PERCENT	33	5.6	3.9	100	80	13	9	60
NORTH CAROLINA																								
LAURINBURG		51	35	1.12	46	4.1	81	MCNAIR 511		23	7.7	6.2	3	2	9.0	111 PERCENT	40	6.7	5.0	100	90	16	12	70
SOUTH CENTRAL AREA																								
ARKANSAS																								
FRENCHMANSBAYOU		35	42	1.11	45	4.1	81	DPL 16		23	7.4	3.3	3	3	5.9	107 PERCENT	40	6.2	5.0	120	90	20	16	67
GRADY		51	34	1.09	46	4.5	82	DELTAPINE 16		23	7.0	3.2	4	3	5.2	105 PERCENT	40	6.1	4.7	120	90	21	13	69
PARK IN		51	34	1.07	45	4.1	84	REX SL-66		20	5.6	4.5	5	2	7.0	92 PERCENT	31	5.1	3.6	120	100	19	14	58
WYNNE		51	34	1.07	44	4.5	83	DELTAPINE 16		22	8.1	4.1	4	2	6.6	104 PERCENT	36	5.9	4.7	130	100	16	12	61
LOUISIANA																								
NEWELLTON		51	34	1.08	46	4.4	83	STONEVILLE 213		22	6.4	2.3	4	2	5.2	102 PERCENT	38	5.9	4.6	120	90	21	16	60

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1972--(Continued)

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Stple	32s In	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent- tial	
				2.5% span	Unif.		Zero Gage	Mpsi			Pct	G/tex		Gra	Yel	27 tx	Lbs	Pct	22s or 50s or 27 tx	27 tx	22s or 50s or 27 tx		27 tx
SOUTH CENTRAL AREA--(Continued)																							
LOUISIANA--(Continued)																							
OPELOUSAS																							
3	SLM	LT SP	42	33	1.00	44	4.2	79	20	6.4	2.6	4	4	95 PERCENT	31	5.9	4.1	120	90	20	18	59	
WATERPROOF																							
3	LM		51	35	1.13	46	3.9	80	23	7.5	3.4	3	2	100 PERCENT	43	6.4	5.1	120	100	23	15	67	
MISSISSIPPI																							
HERNANDO																							
3	SLM	LT SP	42	34	1.06	42	4.0	82	22	6.1	2.0	2	3	100 PERCENT	33	6.3	4.5	90	70	14	12	59	
TUNICA																							
4	LM		51	35	1.07	42	4.2	81	22	6.2	3.2	3	2	100 PERCENT	28	5.5	4.0	90	70	25	21	57	
TENNESSEE																							
CLARKSBURG																							
2	SLM		41	34	1.03	45	4.0	77	21	6.4	2.2	3	3	85 PERCENT	31	6.2	4.1	120	90	13	12	63	
3	LM		51	34	1.04	47	4.0	80	19	6.3	2.2	3	3	5.9	27	5.8	3.8	110	90	11	7	59	
WESTERN AREA																							
NORTHWEST TEXAS																							
ACKERLY																							
1	SLM	LT SP	42	31	0.96	43	3.3	74	19	6.9	6.2	2	4	70 PERCENT	28	6.0	5.2	120	90	31	22	43	
LAMESA																							
1	LM		51	32	1.02	44	3.1	83	23	6.8	5.5	3	3	70 PERCENT	38	5.9	4.6	90	70	62	42	56	
LUBBOCK																							
1	SLM		41	35	1.10	42	3.5	75	22	7.5	3.6	2	3	100 PERCENT *	38	6.5	4.8	110	80	44	35	66	
ARIZONA																							
BUCKEYE																							
3	LM		51	34	1.07	43	4.3	86	23	6.7	3.8	3	2	100 PERCENT	34	5.7	3.8	120	90	17	11	58	
PARKER																							
3	SLM		41	34	1.07	42	4.1	86	23	6.8	2.4	2	2	94 PERCENT	35	6.0	4.3	120	90	18	14	59	
SAFFORD																							
3	SLM		41	35	1.07	43	4.1	75	21	8.1	3.0	3	3	100 PERCENT *	31	6.1	4.7	120	90	16	10	56	

* 100 percent selected for tests, less than 100 percent in the area

1/ Reduced from 32 because of bark

2/ End breakage too high to spin 50s yarn. 44s yarn spun and strength adjusted to equivalent of 50s

3/ Reduced from 41 because of bark

Table 3--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1972--(Continued)

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns											
Grade & Code		Style	32s	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect's		Spin. Poten- tial			
				2.5% span	Unif.		Zero	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx				
No	Name			In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Pct	Pct	No	No	No	No	No	No			
WESTERN AREA--(Continued)																									
NORTHWEST TEXAS--(Continued)																									
STANFIELD																									
3	SLM	41	34	1.05	43	4.8	84	DELTA PINE 23	16 6.3	2.6	2	2	100 PERCENT 5.7	92	30	5.2	4.1	120	100	16	12	50			
YUMA																									
2	SLM	41	34	1.06	43	4.5	86	DELTA PINE 23	16 6.5	2.6	2	2	100 PERCENT 6.0	90	29	5.5	3.6	120	90	18	14	54			
CALIFORNIA																									
BAKERSFIELD																									
3	SLM	41	36	1.12	46	4.3	94	ACALA SJ-1 26	5.8	3.0	2	2	100 PERCENT 5.6	116	46	6.1	4.7	120	90	18	14	74			
CHOWCHILLA																									
2	SLM	41	36	1.11	45	4.3	96	ACALA SJ-1 26	5.5	2.7	2	2	100 PERCENT 5.6	122	49	5.4	4.1	120	100	13	9	73			
CORCORAN																									
3	SLM	41	35	1.12	47	4.1	93	ACALA SJ-1 25	6.2	2.8	2	2	100 PERCENT 6.0	116	46	5.9	4.4	130	100	17	14	70			
EARLIMART																									
3	SLM	41	35	1.07	44	4.7	98	ACALA SJ-1 26	5.1	2.2	2	3	100 PERCENT 5.4	113	43	5.0	4.1	120	90	19	14	61			
HANFORD																									
2	SLM	41	36	1.11	45	4.4	101	ACALA SJ-1 26	5.2	2.8	2	2	98 PERCENT 5.7	116	46	5.2	3.6	120	90	18	13	71			
WASCO																									
3	SLM	41	35	1.07	46	4.3	96	ACALA 4-42 25	6.0	2.9	2	2	100 PERCENT* 6.0	117	46	5.7	4.4	130	100	16	10	71			
WEST TEXAS																									
GARDEN CITY																									
2	SLM LT SP	42	32	0.99	43	3.9	79	LOCKETT 21	4789-A 6.7	3.4	4	4	100 PERCENT* 6.6	86	29	5.7	4.6	120	80	41	26	49			
PECOS																									
3	SLM	41	34	1.04	44	3.9	78	DELTA PINE 19	7.2	3.4	2	2	100 PERCENT* 6.0	90	30	6.0	4.1	120	90	22	20	56			
PECOS																									
3	SLM	41	34	1.09	41	3.2	73	STONEVILLE 21	213 8.4	3.5	1	2	100 PERCENT* 6.1	94	34	7.1	5.0	120	90	28	10	59			

* 100 percent selected for tests, less than 100 percent in the area

Table 4 -- Cotton, American upland long staple: Quality characteristics by production areas, crop of 1972

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade & Code	Style	32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Comber Waste	Strength		Elongation		Appearance Index		Imprfct's		Spin. Potential	
				2.5% span	Unif.		Zero Gage	1/8" Gage			Pet	Rdg		Mpsi	G/tex	Pet	Pet	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx		22s or 27 tx
SOUTHFASERN AREA																							
SOUTH CAROLINA																							
RIDGE SPRINGS																							
4 LM	51	35	1.14	41	3.6	85	24	7.1	5.1	3	2	100 PERCENT		42	6.2	5.5	90	80	27	14	76		
														49	6.9	5.7	120	90	11	8			
SOUTH CENTRAL AREA																							
MISSISSIPPI																							
MORGAN CITY																							
4 LM	51	36	1.13	41	3.2	83	24	6.6	4.7	4	2	100 PERCENT		42	5.5	4.8	90	60	31	20	76		
														46	6.3	5.0	100	80	19	13			
WESTERN AREA																							
NEW MEXICO																							
ARTESIA																							
3 MID	31	36	1.14	41	2.9	91	25	5.8	2.3	1	3	100 PERCENT	1	49	6.0	5.0	80	60	28	18	85		
														57	6.4	5.5	90	70	12	12			
HAGERMAN																							
3 SLM	41	37	1.17	44	3.7	89	26	5.9	3.5	2	3	100 PERCENT	1	50	6.3	5.1	90	70	29	15	95		
														55	6.5	5.4	100	90	9	10			
HATCH																							
3 SLM	41	37	1.18	46	3.4	88	24	6.4	3.0	1	2	100 PERCENT	1	67	6.6	5.3	80	70	21	17	93		
														55	7.1	5.7	110	80	11	9			
WEST TEXAS																							
EL PASO																							
3 SLM	41	36	1.14	41	3.2	90	24	6.0	2.9	1	2	75 PERCENT		43	6.1	4.6	110	80	8	8	78		
														51	6.3	5.1	110	90	4	5			
EL PASO																							
3 SLM	41	36	1.15	44	3.4	86	24	6.0	3.2	2	3	91 PERCENT		47	6.3	4.8	90	70	14	15	84		
														53	6.4	5.2	110	80	19	10			

* Comber Waste and Combed Yarn Data

1/ 100 percent selected for tests, less than 100 percent in the area

Table 5 --Cotton, American Pima extra long staple: Quality characteristics by production areas, crop of 1972

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Combed Yarns										
Sample Number		Array Length		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Comber Waste	Strength		Elongation		Appearance Index		Imprfect'ns					
No	Grade Name & Code	UQL	CV		Pct	Rdg			Mpsi	G/tex			Pct	No	Yel	No	Lbs	Pct	Lbs	Pct	No	50s or 12 tx	80s or 7 tx	50s or 12 tx
				In	Pct					Pct	No		Pct		Pct	No		No		No				
WESTERN AREA																								
ARIZONA																								
1	CASA GRANDE	5	44	1.48	29	4.0	93	34	PIMA S-2	7.1	3.8	5	5	70 PERCENT	9.0	16.6	64	37	5.4	4.9	120	120	2	1
SAFFORD																								
2		5	44	1.45	31	3.9	100	34	PIMA S-4	8.3	3.3	5	5	90 PERCENT	8.0	17.7	64	34	5.9	5.0	120	120	2	2
WENDEN																								
1		4	44	1.39	33	3.9	94	34	PIMA S-4	7.8	2.4	4	4	100 PERCENT	7.1	16.4	65	35	5.7	4.9	120	120	2	1
NEW MEXICO																								
2	COLUMBUS	4	44	1.43	32	3.3	97	33	PIMA S-4	8.6	2.4	4	5	95 PERCENT	7.5	16.9	65	35	5.8	5.3	120	110	2	1
WEST TEXAS																								
3	EL PASO	4	44	1.43	33	3.2	100	32	PIMA S-4	8.7	3.1	4	5	98 PERCENT	8.4	17.4	63	34	5.7	4.8	110	110	2	1
EL PASO																								
3		4	44	1.43	34	2.9	100	33	PIMA S-4	8.3	2.8	5	6	99 PERCENT	7.8	18.5	62	34	5.8	4.8	100	110	4	3

